



T.E. Stevens Custom Operations & Asset Management Software

A Case Study by CCG

Project Overview

Established in 1986, T.E. Stevens is a Birmingham, Alabama-based construction company that has grown to over 100 employees. The company specializes in providing pre-development planning, civil site development, and smart construction services, with a primary focus on laying utilities for new, large-scale constructions like shopping centers

To deliver projects on time and within budget, T.E. Stevens manages a wide array of assets. This includes their workforce, a large fleet of over 100 earthmoving machines like excavators and bulldozers, rented equipment, and various tools ranging from simple hand tools to advanced GPS mappers. Efficient coordination of these assets is critical to their project success

The Problem

T.E. Stevens struggled with previous attempts to manage their complex operations. Their information was fragmented across three different systems, creating significant challenges. Off-the-shelf software proved inadequate; it was often bloated with excessive, confusing features and used terminology that didn't align with the company's language, leading to difficult training and overwhelming users.

Furthermore, a prior engagement with another development group resulted in an incomplete and flawed system that failed to meet their needs. The core issue was a lack of a unified, easy-to-use system, which caused training difficulties, workflow inefficiencies, and missed project predictions

The Goal

The primary objective of the project was to consolidate the fragmented systems into a single, unified platform. The new software needed to be complete, easy to use, and, most importantly, "speak their language" by using the company's internal terminology. The goal was to create a streamlined workflow for all users—from administrative staff and project managers to field workers and temporary contractors.

Discovery & Research

To ensure success where others had failed, the development process began with a deep commitment to listening to the client. Initial meetings, conducted both by phone and in person, focused on understanding T.E. Stevens' specific struggles and requirements—a step previous partners had overlooked.

By approaching the project with natural curiosity and empathy, as if it were our own company, we were able to uncover their true needs before proposing any solutions. This foundational understanding of their problems was critical for designing a system that would genuinely solve them.

Key Insights

Through in-depth conversations with stakeholders, several key insights emerged:

- T.E. Stevens had a very clear understanding of their desired outcome. This allowed the design process to build upon their well-established ideas rather than starting from scratch.
- It was evident that off-the-shelf software could not meet their specific operational needs and terminology. This affirmed that a custom solution would lower overall costs and improve operational accuracy.
- Given their negative experiences with past vendors, building a strong, trust-based relationship was paramount. Radical honesty about the development process and costs was crucial to establishing this trust.

Meet the Users

The software was designed for a diverse group of users with varying levels of technical skill and frequency of use:

- **T.E. Stevens Employees:** This group includes administrative staff, managers, project managers, and supervisors who use the system regularly.
- **Field Workers & Contractors:** These users, who may be temporary, need to interact with the system for specific tasks with minimal training.
- **Shop Employees:** Shop managers and mechanics are critical users who rely on the system to manage equipment maintenance, repairs, and readiness, directly impacting project timelines.

The Solution

The solution was a custom-built, unified software platform. The development process involved breaking down the statement of work into detailed design documents and creating an intuitive user interface tailored to each user group to ensure minimal training was needed.

A significant part of the project involved migrating, cleaning, and merging data from T.E. Stevens' three legacy systems into the new, single database. Following a thorough process of development, testing, and user acceptance testing, the system went live successfully with very few immediate issues.

Solution - Walkaround Feature

A key feature of the new system is the "walkaround inspection" functionality. Before operating any heavy machinery, an employee or contractor can scan a QR code on the equipment with their phone. This action opens a digital inspection form, enabling them to quickly perform a pre-operation safety check, similar to a pilot's pre-flight inspection.

The system uses T.E. Stevens' own term, "walkarounds," making it instantly familiar to users. If any item fails the inspection, the system automatically notifies the project manager, allowing them to address potential safety or maintenance issues proactively before they escalate. This feature ensures equipment is safe to operate and tracks its usage and condition over time.

Solution - Equipment Tracking

The software provides a comprehensive equipment tracking feature that gives a complete overview of every asset, whether owned or rented. This module tracks an asset's current location, operational status, maintenance history, and details on permits and rental cycles.

Project managers can see the status of all equipment—whether it's fully operational, requires minor repairs, or is down with a major issue like a hydraulic leak. This real-time visibility eliminates the need to call the shop for updates and allows for better planning, communication, and coordination, ensuring that equipment is ready and available when needed.

Key Learnings & Next Steps

The project reaffirmed the importance of deep listening and collaborative design in creating software that truly fits a client's unique operational context. The success of the initial launch has already led to discussions about the future. T.E. Stevens is planning a Phase Two of the project, which will add more features to further enhance their workflows and drive even greater efficiencies.

